

Customer No.:31561  
Application No.: 10/710,367  
Docket No.: 13371-US-PA

### REMARKS

#### Present Status of the Application

The Office Action rejected claims 1, 2 and 5-7 under 35 U.S.C. 103(a) as being unpatentable over Lien et al (US 6,682,786) in view of Liao et al (US 2002/0186343). The Office Action also rejected claims 4 under 35 U.S.C. 103(a), as being unpatentable over Lien et al (US 6682786) and Liao et al in view of Hachisu et al (US 2002/0113928).

#### Claim Rejections Under 35 U.S.C. §103

The Office Action rejected claims 1, 2 and 5-7 under 35 U.S.C. 103(a) as being unpatentable over Lien et al (US 6,682,786) in view of Liao et al (US 2002/0186343). Responsive to the rejections, Applicants hereby otherwise respectfully traverse the rejections. As such, Applicant submits that claims 1, 2 and 5-7 are now in condition for allowance.

Applicants submit that Lien et al and Liao et al cannot be combined to render the present invention as set forth in claims 1, 2 and 5-7 a *prima facie* obvious case. Lien et al teach "[N]ovel liquid crystal displays formed from liquid crystal display cells for use in, e.g., television sets or personal computers" (Column 2, lines 37-39; Emphasis added) and "[T]he novel liquid crystal display cells ... include at least two substantially homogeneous alignment layers disposed on transparent electrodes with each alignment layer formed from a substantially homogeneous

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fluorinated material ..." (Column 2, lines 39-44; Emphasis added). As such, a principle of operation of Lien et al is disclosed in the "Field of the Invention" section thereof as "novel liquid crystal displays formed from substantially homogeneous alignment layers disposed on transparent electrodes ..." (Column 1, lines 11-14; Emphasis added). However, Liao et al teach that "the liquid crystal on silicon (LCOS), which generally applies to a small display panel is ..." (Paragraph 0005), and "unlike the large size LCD panel, the LCOS applications is aimed at small size panel, such as projector or LC panel used in project TV" (Paragraph 0009; Emphasis added). Therefore, Liao et al teach away from modifying Lien's display to include Liao et al's silicon substrate in places of the transparent electrodes. As it has been held that "references cannot be combined where reference teaches away from their combination" (MPEP §2145.X.2), the present invention as set forth in claims 1, 2 and 5-7 are submitted to be unobvious over Lien et al and Liao et al, or any of the other cited references, taken alone or in combination, and should be allowed.

Further, whatever Lien et al is modified with Liao et al, the proposed modification inevitably destroy the basic principles of operation of either Lien et al or Liao et al, because an principle of operation of Lien et al relies on alignment layers disposed on transparent electrodes and an principle of operation of Liao is that the LCOS is aimed at small display panel rather than large size LCD panel which is concerned by Lien et al. Therefore, since "the proposed modification cannot change the principle of operation of a reference" the teachings of the references are not sufficient to render the claims prima facie obvious (MPEP §2143.01). When

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prior art references require selective combination by the court to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gleaned from the invention itself (*Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143 (Fed. Cir. 1985)).

In addition, regarding claim 5, the office action stated Lien discloses a material of the inorganic alignment film comprises silicon oxide (col. 6, lines 15-30). However, applicant does not agree. As a matter of fact, Lien teaches "suitable non-polymeric materials for use herein include *diamond-like carbon* and the like. Suitable polymeric materials for use herein include polyimides, polyamides, polyesters, polycarbonates, polyureas, polyethers, polyimidoamides, polypeptides, polyolefins, polyvinyls such as polystyrene, polyacrylates, polymethacrylates, polyamideimides, polyurethanes, silicon containing polymers, e.g., siloxane based polymers, and the like. A preferred material for use herein is *diamond-like carbon* (see col. 6, lines 15-30). Apparently, Lien teaches the material of the alignment layer can be non-polymeric materials including diamond-like carbon, but Lien does not teach the material of the alignment layer comprises silicon oxide as claim 5 recited.

The Office Action rejected claims 4 under 35 U.S.C. 103(a), as being unpatentable over Lien et al (US 6682786) and Liao et al, in view of Hachisu et al (US 2002/0113928).

Applicant submits that, as disclosed above, Lien and Liao fail to teach or suggest each and every element of claim 1, from which claim 4 depends. Hachisu cannot cure the deficiencies

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of Lien and Liao. Therefore, independent claim 1 is patentable over Lien, Liao and Hachisu. For at the least the same reasons, its dependent claim 4 is also patentable as a matter of law.

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**CONCLUSION**

For at least the foregoing reasons, it is believed that the pending claims 1, 2, and 4-7 are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

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Respectfully submitted,



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